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ABSTRACT

This study examines sex differences in adolescent perceptions and functioning. Subjects were public school students who voluntarily filled out a questionnaire during class time. The information sought was: (1) whether the sources and reported intensity of stress in the day-to-day lives of male and female adolescents are different; (2) whether male and female adolescents differ in their utilization of social support networks for coping; and (3) whether differences exist between male and female adolescents on well-being criteria. A number of findings are discussed, including the fact that females, while more open and free in expressing problems, operate under more stress and psycho-physical strain than males do. (Author/BP)

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Sex Differences in Adolescent Life Stress, Social Support and Well Being[1]

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One of the key issues faced by adolescents is that of identity formation (Erikson, 1950). An important part of the Identity development of an adolescent is sex role identification. This is a process that starts in early childhood under the forces of socialization, and becomes consolidated in the adolescent period when the physical and physiological changes and social pressures spur the differentiation between the sexes. Sex role identification is known to have a powerful effect in molding an individual's perceptions, attitudes and behaviors (Angrist, 1969; Horner, 1970, Bieri, et al., 1958; Maccoby, 1966). Thus, one can expect that by adolescence, males and females, although moving through the same life stage, may perceive, experience and respond to their life situations in different ways.

The exhaustive surveys of the literature on sex differences conducted by Maccoby and Jacklin (1974) reveal a number of findings relevant to the adolescent age group. They report that males and females appear to be equivalent on measures of self esteem in early adolescence whereas during college years, the self esteem of women tends to be lower. Males are generally found to be more aggressive than females, both verbally and physically. On measures of locus of control males score higher than females on internal control, suggesting they have a greater sense of being in control of their own destinies. Another

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difference is that young women seem to do better on verbal tasks and males on visual and spatial tasks. In the social arena, males show a preference for larger group activities while females lean towards dyadic, triadic-friendship groups.

Other researchers (Bardwick and Douvan, 1972) find that for young women self esteem and self confidence is strongly tied to skill and success in interpersonal relationships, whereas for young men achievement in the real world provides the sources of self esteem. Another difference Douvan (1960) points out is that adolescent males develop personal and independent standards of behavior, control and values earlier than females whereas the latter tend to remain more dependent on external standards and authorities.

Gordon (1975) in a summary of studies using self report instruments and projective methods with adolescents reached the following conclusions. Male adolescents saw themselves more positively than did females. They conceived of themselves as more adequate, more independent and were more accepting of their bodies and physical appearance. They generally expressed having fewer problems. Female adolescents, on the other hand had more positive views of their teachers and schools. It also seemed easier for the young women to acknowledge and express their concerns about their feelings than it was for the men.

The present study continues to examine for sex differences in adolescent perceptions and functioning. The prime interest

is in determining whether: (1) the sources and reported intensity of stress in the day-to-day lives of male and female adolescents are different, (2) male and female adolescents differ in their utilization of social support networks for coping, and (3) there are differences to be found between male and female adolescents on well-being criteria.

Method

Subjects

The respondents in this study were 274 adolescents, 93 males and 181 females. Their ages ranged from 13 to 20 with a mean age of 16.3 years. All of the respondents attended high school, from grades 9 through 13. Eighty-five percent of the subjects were living with both parents, 11% were living with one parent (either mother or father) and 4% were living with someone other than their parents. The typical respondent was likely to be the first born (32%) or second born (35%) in the family, and 99% of the subjects had one or more siblings. In 253 cases (92%) the father was employed full-time, and in 149 cases (54%) the mother was either employed full-time (34%) or part-time (20%). The fathers' ages ranged from under 35 to over 60, while mothers' ages ranged from under 35 to between 55 and 60. The educational level of fathers ranged from no high school (18%) to post M.A. education (5%); for mothers, no high school (20%) to graduate education beyond M.A. (1%). Family incomes also covered a wide range, from under $5,000 to over $25,000.

Procedure

The subjects were drawn from three schools in or surrounding Metropolitan Toronto. One of the schools was located in the downtown core area, a second in an older suburban community, and the third in a newer suburban area on the outskirts of Toronto. Family income and parents' education level rose markedly from the first to the third school. Administrative officials and teachers in these schools were familiarized with the study and were asked to allow their students to participate. With their cooperation students in particular classes were freed to complete a questionnaire during regular class periods. Participation of the students was voluntary.

Measures

All subjects provided demographic information descriptive of themselves and their parents (e.g., age, grade, sex; age, education, income of parents, etc.).

(1) Experienced Stress

Respondents were asked to indicate how bothered or concerned they were about twenty-six separate aspects of their life. The aspects selected were those generally referred to as particular problems of adolescents in the academic and popular literature. These included such items as "concern about my performance in school", "concern about what others think of me", "feeling awkward in social situations", "concerns about the way I look", "not knowing what I want to do with my life", etc. Respondents indicated how much they were concerned

or bothered by each of the potential problem areas by endorsing one of five Likert-type alternatives. These ranged from "almost never bothered by it" (1), through "sometimes bothered by it" (3), to "almost always bothered by it" (5).

Responses to the twenty-six statements assessing the degree of stress the adolescents experienced in their day-to-day living were factor analyzed, using a principal components varimax rotation method. Seven factors, accounting for 61 percent of the variance, emerged. These seven factors, the number of items loading above .40 on each, and the internal consistency (coefficient alpha) of each factor, are shown in the top half of Table 1. An acceptable level of reliability was present in all but one case (Future Goals).

Enter Table 1 About Here

Cluster scores were computed for each of the seven factors, and their inter-correlations were computed. These results indicated that 18 of the 21 correlation coefficients (86%) were significantly different from zero at the .05 level of confidence or better. The correlations, all positive in sign, ranged from a low of .07 (Physical Health and Future Goals) to a high of .66 (Peer Acceptance and Isolation). The mean inter-factor correlation was .35. Thus, in general, adolescents who reported experiencing stress or problems in one area of their existence were also more likely to be experiencing stress or problems in the other areas.

(2) Supportive Social Relationships

(a) Choice of Helpers

Subjects were asked to select and rank the three people they were most likely to go to for help with problems and tensions. A list of 17 classes of potential helpers was provided which included such people as parents, teachers, relatives, peers, clergyman and therapists. The category "other" was also included so that respondents could identify an individual who might not be listed.

(b) Likelihood of Informing Helpers

Each respondent was asked how likely they were to let each of the three helpers (mother, father and peer helper) know when they had a "bad day" or had a problem that was making them tense and anxious. Five responses, of Likert-scale format were provided. These ranged from "I always let her/him know my feelings after a bad day and why I'm feeling this way" (1), through "I sometimes let her/him know" (3), to "I never let her/him know my feelings after a bad day and why I'm feeling this way" (5).

(c) Number of Problems Felt Free to Discuss with Helpers

Each respondent was provided with a list of 12 specific problems and asked to indicate those problems in the list they felt free to ask for help with from each of the three helpers. The list included such things as school-related problems, social problems, money problems, and health-related problems. The number of problems that respondents felt free to discuss

with a particular helper were summed to provide a total.

(d) Satisfaction with Help

Each respondent was asked to indicate his satisfaction with the help they received from their mothers, fathers, and peers. Six alternatives of Likert scale format were provided. These ranged from (1) "I am very satisfied with the way she/he helps me cope or deal with my problems", through (3) "I am somewhat satisfied", to (6) "I am very dissatisfied with the ways she/he helps me cope or deal with my problems".

(3) Measures of Well-being

Three conceptually distinct areas of well-being were examined:

(a) Satisfaction with Life

This measure, derived in part from earlier research by Bachman et al. (1970), contained 7 items. Five of these focused on respondents' satisfaction with specific areas of their lives (e.g., friendships, family and home life, leisure time). Two of the items tapped more global aspects: their satisfaction with life in general, and whether they felt they had good or bad breaks in life. Respondents indicated their degree of satisfaction on a five-point Likert-type scale. The alternatives ranged from (1) "completely satisfied", through (3) "neither satisfied nor dissatisfied" to (5) "very dissatisfied". Responses to the seven items were summed to form an index measure of satisfaction with life.

(b) Mental and Physical Well-being

This was assessed by a 17-item scale used in earlier research by Gurin, Veroff and Feld (1960). Respondents were asked to respond to a series of statements referring to physical, psychological and psychosomatic symptoms. Items included such things as "Are you bothered by all sorts of aches, pains and ailments in different parts of your body?", "Do your hands ever tremble enough to bother you?", "Do you find it difficult to get up in the morning?", and "Are you ever troubled by headaches or pains in the head?". Their responses were recorded on five-point Likert-type scales, the alternatives ranging from "never" (1), through "Sometimes (3) to "Nearly Always" (5). Responses to the seventeen items were combined to form an index measure of mental and physical well-being.

(c) Affective States

The affective states of our respondents were examined using measures which Bachman and his colleagues (Bachman et al., 1970) developed in a longitudinal study of high school students. The measures were designed to evaluate eleven affective states: Emotional Dependence (6 items), Impulse to Aggression (4 items), Overt Aggression (3 items), Depression (6 items), Anomie (8 items), General Anxiety (7 items), Resentment (7 items), Anxiety and Tension (5 items), Irritability (8 items), and Guilt (5 items), and Lack of Social Support (4 items). A 5-point Likert-type scale ranging from (1) "almost always true" through to (5) "never true" was used for each item. Respondents were asked

to indicate how true each item (e.g., I feel sad) was of them.

The bottom half of Table 1 presents the internal consistency reliability estimates of the thirteen well-being measures. In most cases the reliability exceeded .70, indicating that the index measures possessed an acceptable level of internal consistency. These thirteen measures were inter-correlated and the majority of the correlations (91%) were positive and significantly different from zero ($p < .05$). These correlations ranged from a low of -.04 (Overt Aggression and Lack of Social Support) to a high of .75 (Anomie and Resentment). The mean inter-measure correlation was .36, indicating that adolescents who reported a positive or favourable standing in one area of well-being were also likely to report positive standings on all the other areas as well.

Results

Demographic Variables

Male and Female adolescents were compared on 14 demographic and situational variables (e.g., age, educational level, family income, etc.). Only one significant difference was found, ordinal position - more males than females in the sample were first children. The relative absence of sex differences on these variables gives one added confidence that should differences be found on measures of experienced stress, social support or well-being, they would not be attributable to initial demographic differences between the males and the females.

Experienced Stress

Table 2 presents the comparison of experienced stress by male and female adolescents. Females reported significantly greater experienced stress on four of the seven factors, as well as on a composite measure of problem related stress. The factors on which differences were found were Peer Acceptance, Isolation, Difficulties with Parents and Opposite Sex Relationships.

Enter Table 2 About Here

Supportive Social Relationships

Choice of Helpers

The seventeen categories of potential helpers were compressed into the following groups for purposes of analysis: mothers, fathers, same sex peers, opposite sex peers and other adults. Table 3 presents frequency distribution patterns for male and female adolescents indicating how their first choices were distributed, and secondly, how their first three choices were distributed. On first choice of helper, female and male adolescents revealed two significant differences. Males were more likely than females to select fathers as first choice ($p < .05$) and females were more likely than males to choose same sex peers as helpers ($p < .05$). Looking over the first three choices, only one significant difference was found. Females, again, were more likely than males to choose same sex peers as helpers ($p < .05$).

Enter Table 3 About Here

Helping Relationships

Table 4 presents comparisons of male and female adolescents on aspects of the informal helping relationship they experience with their mothers, fathers and peers.

Enter Table 4 About Here

The following observations were made from these data. In regard to mothers as a helping resource, there were no statistically significant differences. Comparing male and female perceptions of fathers as a helping resource, no significant differences were found. The data did reveal that females tended to discuss fewer problems with their fathers than did the males. Several statistically significant sex differences appeared in relation to peers as a source of support. These differences appeared on every dimension that was examined. Female adolescents were more likely to inform a peer when they were having problems or anxieties ($p < .01$); they felt free to discuss more of their problems with their peer helpers ($p < .01$), and they were more satisfied with their peer helpers ($p < .01$.

Measures of Well-being

Table 5 presents the data comparing male and female adolescents on well-being measures. There were no significant differences found between males and females on the life satisfaction measure. However, on the measure of psychosomatic complaints and on 10 of the 11 measures of negative affective states significant differences were found. All of these significant differences showed that female adolescents reported a poorer level of

emotional and psychological well-being.

Enter Table 5 About Here

DISCUSSION

The present study reveals clear cut differences between male and female adolescents on a number of dimensions. Females tended to disclose their negative experiences to mothers and peers more readily than did males. They also felt free to discuss a more extensive array of problems with their peers than did their male counterparts. In an earlier study of college students, Jourard and Richman (1963) similarly found that female students tend to disclose themselves more fully to selected others (parents and friends) than do males, and were more likely to be disclosed to by others as well. Perhaps these findings are due to the fact that it is generally more accepted in our society for women to reveal and discuss any emotional experiences. In addition, it may be less threatening to the female identity to discuss negative emotional experiences which may suggest to others that they are in distress or not coping well.

Males and female adolescents both seem to favor mothers over fathers as helpers; and peers, over their parents. Other adults, whether teachers, neighbors, professional counsellors or therapists figure minimally as helpers to these young people. Female adolescents appear to rely less on father as a first choice of helper when they are under stress and more on their same sex peers than do their male counterparts.

Adolescent females also appeared more satisfied than males with the support they received from their peers to help them deal with their problems and anxieties. Douvan and Adelson (1966) report that females (age 10-16) were more likely than males to feel they could be as close to a friend as to their family. They attribute this to a slower rate of social development in males or to the possibility that among North American males there is an absolute inhibition of intimate friendship which continues well into adulthood. Perhaps the greater intimacy among the women lays the groundwork for more effective helping to take place.

Although female adolescents appear more open and freer with problem expression, they appear disadvantaged on some crucial dimensions. They reported experiencing greater stress in their daily lives, particularly in such areas of concern as acceptance by peers, relationships with the opposite sex, feelings of isolation and loneliness and disagreements with parents. They also reported experiencing more negative affect and a greater number of psychosomatic symptoms. Thus, it appears that female adolescents as a group function under conditions of greater stress than do males and this has negative impact on their general health. Interestingly enough this is not reflected in their reports of life satisfaction. An extensive survey by Shaver and Freedman (1975) conducted on the national readership of Psychology Today reported findings similar to what was observed in this study. Their female subjects more often reported having psychological and physical problems

generally identified with stress, however, there was no difference in the degree of happiness reported by either sex. It is difficult to explain women's responses to the questions of life satisfaction and happiness given their reports of poorer well-being. Whether they are making socially desirable responses to the questions, or whether their expectations of life are lower, or whether they are more aware and honest about their emotional and physical symptoms is not clear. Another explanation may be that in spite of experiencing greater stress females may have enough positive experiences to offset the negative ones. Bradburn (1969) provides a strong argument that happiness and satisfaction are dependent on the negative and positive affect balance in an individual's life rather than on negative experiences alone. However, all of these explanations tend to lose their potency in the face of certain statistical evidence. These data indicate that female adolescent admissions and readmissions to psychiatric facilities are higher than for males and although their actual rate of suicide is less than that for males they actually attempt suicide more frequently.

One can conclude then, that female adolescents are under greater stress and are likely to be experiencing greater psychological and psycho-physical strain as a result. More extensive research on this subject is needed both in validating these findings and should they be validated, in identifying the reasons for this situation. A number of authors (Gore & Tudor, 1973; Komarovsky, 1946, Bardwick and Douvan, 1972) have submitted

hypotheses as to why women in general and female adolescents in particular might be under greater strain than the males. Up until puberty women are reared with a bisexual identity. They are rewarded for both traditionally feminine pursuits as well as for successful competitive achievement. In adolescence, societal and familial expectations of females become more diffuse and sometimes full of contradictions and inconsistencies. The net result for females is a delay in evolving a definition of the self and with this comes a sense of uncertainty and lacking control of their lives. They tend to allow their identities to be defined or molded by their relationships with others which places them in a very vulnerable and unstable position. This process can potentially generate sufficient conflict, ambivalence, confusion and denial of self so as to affect the health and well-being of many women in our society.

Footnotes

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Table 1

Reliability of Measures Used (Coefficient Alpha)

Measures of Stress	Number of Items	Reliability
Peer Acceptance	6	.81
Physical Health	2	.76
Parental Demands	2	.68
Isolation	5	.81
Future Goals	2	.34
Difficulties with Parents	5	.75
Relationships with Opposite Sex	2	.68
Satisfaction with Informal Helping		
Total Satisfaction with Helpers	3	.57
Measures of Well-being		
Satisfaction with Life	7	.74
Mental and Physical Well-being	17	.84
Emotional Dependence	6	.57
Impulse to Aggression	4	.68
Overt Aggression	3	.64
Depression	6	.76
Anomie	8	.83
General Anxiety	7	.78
Resentment	7	.79
Anxiety and Tension	5	.80
Irritability	8	.77
Guilt	5	.78
Lack of Social Support	4	.72

Table 2

Experienced Stress of Male and Female Adolescents

	Males		Females	
Stressors	Mean	S.D.	Mean	S.D.
Peer Acceptance	13.8**	4.61	15.8**	4.97
Physical Health	5.2	2.27	5.4	2.36
Parental Demands	5.3	2.30	5.0	2.12
Isolation	10.2*	7.41	11.7*	4.69
Future Goals	6.2	1.94	6.4	1.77
Difficulties with Parents	11.1***	4.04	12.0***	4.29
Relationship with Opposite Sex	5.4*	1.82	6.7*	2.08
Total Stress	57.2*	14.97	63.0*	15.21

* Difference between means is significant at the .001 level of confidence, two-tailed test.

** Difference between means is significant at the .05 level of confidence, two tailed test.

*** Difference between means is significant at the .10 level of confidence, two-tailed test.

Table 3

Females First Choice of Helper	N	%
Mothers	55	.30
Fathers	6	.03*
Some Sex Peers	71	.39*
Opposite Sex Peers	33	.18
Other Adults	7	.03

Males First Choice of Helper	N	%
	29	.31
	14	.15*
	20	.22*
	12	.13
	7	.08

Females First Three Choices	N	%
Mothers	117	.21
Fathers	56	.10
Same Sex Peers	185	.34*
Opposite Sex Peers	106	.20
Other Adults	32	.06

Males First Three Choices	N	%
	59	.21
	46	.16
	52	.19*
	45	.16
	25	.09

* Male and female percentages are significantly different from each other at the .05 level of confidence, two-tailed test.

Table 4

Supportive Social Relationships of Male and Female Adolescents

	Males		Females	
	Mean	S.D.	Mean	S.D.
(4) Satisfaction with help of mothers	3.1	1.11	2.8	1.13
fathers	3.4	1.05	3.5	1.15
peers	2.4**	1.01	2.0**	.91
(2) Likelihood of disclosing to mothers	2.2	1.20	2.4	1.26
fathers	2.4	1.33	2.7	1.54
peers	2.1**	.86	1.8**	.83
(3) Problems felt free to discuss with mothers	7.1	3.07	7.6	3.02
fathers	6.5	3.50	5.8	3.53
peers	6.8**	3.56	9.2**	3.13

** Means are significantly different from each other at the .01 level of confidence, two-tailed test.

Table 5

Emotional and Physical Well-Being of Male and Female Adolescents

	Males		Females	
Measures of Well-Being	Mean	S.D.	Mean	S.D.
Life Satisfaction	17.9	4.57	18.3	5.09
Mental and Physical Well-being	66.8*	7.67	61.2*	9.13
Emotional Dependence	19.0*	2.58	17.2*	3.63
Impulse to Aggression	14.6**	3.20	13.8**	3.18
Overt Aggression	12.8	2.39	13.0	1.93
Depression	21.1*	3.09	19.3*	2.98
Anomie	30.8**	4.87	29.0**	6.15
General Anxiety	25.1*	4.34	22.3*	5.54
Resentment	27.1**	4.36	25.8*	5.50
Anxiety and Tension	17.10*	2.87	15.4	3.47
Irritability	23.6*	3.66	21.9*	3.62
Guilt	15.5*	3.58	14.1*	3.77
Lack of Social Support	13.0*	2.08	12.1*	1.96

* Difference between means is significant at the .001 level of confidence, two-tailed test.

** Difference between means is significant at the .05 level of confidence, two-tailed test.

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